Title (en)

THERMOELECTRIC CONVERSION ELEMENT

Title (de)

THERMOELEKTRISCHES UMWANDLUNGSELEMENT

Title (fr)

ÉLÉMENT DE CONVERSION THERMOÉLECTRIQUE

Publication

**EP 2323187 A4 20120627 (EN)**

Application

**EP 09808249 A 20090817**

Priority

- JP 2009064409 W 20090817
- JP 2008209603 A 20080818

Abstract (en)

[origin: EP2323187A1] A Seebeck element is a very expensive thermoelectric conversion element because of a low production. The generated power does not correspond to costs and the popularization of the Seebeck element is late. Therefore, one of problems of the present invention includes providing an efficient thermoelectric conversion element that is worth the cost of manufacturing. It is also necessary to control to begin the operation of power generation when the difference of temperature needed to be is caused to store generated power in a battery efficiently. The thermoelectric conversion element is configured to have two types of conductors with different Seebeck coefficients physically connected alternately with an electrode via one or more electrical resistance layers formed by electrical resistor having electrical resistance rate of 1×10 -3 ©cm or more. This arrangement enables charges to be generated by the difference of temperature in both ends of the element and to be densely stored in the electrical resistance layers formed by electrical resistor. Moreover, it is though that thermal energy equivalent to the difference of temperature is input into the electrical resistance layers and that electromotive force increases caused by increase of output voltage.

IPC 8 full level

**H01L 35/32** (2006.01); **H02N 11/00** (2006.01)

CPC (source: EP US)

**H10N 10/00** (2023.02 - US); **H10N 10/17** (2023.02 - EP US)

Citation (search report)

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Designated contracting state (EPC)

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DOCDB simple family (publication)

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